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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/442,756 | 11/18/1999 | REINHARD BEUTH | 9350-0144-0 | 6353 |

7590 12/05/2002

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EXAMINER

HON, SOW FUN

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 1772 | 21 |

DATE MAILED: 12/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-------------------------|------------------|
| Office Action Summary | Application N . | Applicant(s) |
| | 09/442,756 | BEUTH ET AL. |
| | Examiner Sow-Fun Hon | Art Unit 1772 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 23 September 2002.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,4-6,9-12 and 14-29 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,4-6,9-12 and 14-29 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/12/02 has been entered.

Rejections Withdrawn

2. The 35 U.S.C. 103(a) rejection of claims 14-16 over Reimann et al. in view of Yamamoto et al. has been withdrawn due to Applicant's amendment in Paper # 17 (filed 08/12/02).

Rejections Repeated

3. The 35 U.S.C. 103(a) rejection of claims 2,4-7,9-12,18-22,24-29 over Bouilloux et al. has been repeated for the same reasons of record in Paper # 16 (mailed 05/23/02).

4. The 35 U.S.C. 103(a) rejection of claim 23 over Bouilloux et al. in view of Jadamus et al. has been repeated for the same reasons of record in Paper # 16 (mailed 05/23/02).

New Rejections

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

6. Claims 2,4-6,9-12,14-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Are PA 46, PA 66, PA 610, PA 1010, PA 612, PA 1012, PA 11, PA 12, PA 1212, PA 6,3-T respectively short for polyamide or nylon 4,6, polyamide or nylon 6,6, polyamide or nylon 6,10, polyamide or nylon 10,10, polyamide or nylon 6,12, polyamide or nylon 10,12, polyamide or nylon 11, polyamide or nylon 12, polyamide or nylon 12,12, polyamide 6,3-T ?

Claim Rejections - 35 USC § 103

7. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bouilloux et al. in view of Lausberg et al. (US 5,179,164).

Bouilloux et al. has molding compositions which are used for flexible pipes carrying coolant (for cooling) situated under the hood of cars, and teaches that the prior art has already described polyamides which have a high tensile modulus of elasticity (are flexible) owing to mixing with polyolefins (column 2, lines 5-15). Bouilloux et al. teaches that the polyolefins replace the plasticizers which can leach out of the polyamide matrix, resulting in a decrease in the tensile modulus of elasticity (loss of the flexibility) (column 2, lines 5-15). Since the pipes are taught to carry coolant (used for cooling) (column 1, lines 30-40) which contain various forms of alcohol such as ethanol, it can be inferred that the composition would comprise not more than 1.6 to 2 % by weight of extractables when measured in ethanol solvent.

Bouilloux et al. teaches that the composition comprises polyamide and polyolefins (abstract). PA (polyamide) 12 (12-aminodecanoic acid condensation product) and PA 612 are taught (column 2, lines 50-68). Polyamide 6,3-T is part of the polyamide condensation product family. The polyolefins are polyethylenes such as LDPE, polypropylene, ethylene-propylene rubbers, ethylene-propylene-diene copolymers, styrene-ethylene-butene-styrene block copolymers, and ethylene-alkyl (meth)acrylate copolymers, and are functionalized with epoxy groups (epoxide) or maleic anhydride (column 5, lines 5-68 and column 6, lines 1-15). The compositions are blended, and then granulated before molding (column 9, lines 25-50).

Bouilloux et al. fails to teach what the tensile modulus of elasticity of the molding composition is.

Lausberg et al. teaches a molding composition comprising 10 to 90 % by weight of polyolefin (propylene homopolymer or copolymer) and 10 to 90 % by weight of polyamide (abstract). The tensile modulus of elasticity of the polyolefin is taught to be greater than 300 N/mm². It can thus be inferred that a blend of polyamide and polyolefin would then have a tensile modulus of elasticity that would overlap with the claimed range of 200 to 950 N/mm². The polyolefin can also be ethylene-propylene rubber, ethylene-propylene-diene copolymers (copolymers of propylene, ethylene, butene, and dienes). Lausberg et al. teaches that the polyamides can be PA 612 (column 3, lines 5-55). An additional polyolefin component is 0.5 to 30 % by weight, and comprises ethylene copolymerized with 1 to 45 % by weight of acrylate, and are functionalized with epoxy groups or maleic anhydride (column 4, lines 10-68 and column 5, lines 1-15). The molding compositions are blended and then granulated before molding (column 10, lines 20-30).

Because Bouilloux et al. discloses that prior art has already described polyamides which have a high tensile modulus of elasticity (are flexible) owing to mixing with polyolefins, Lausberg et al. teaches that the tensile modulus of elasticity of the polyolefin is greater than 300 N/mm², and both Bouilloux et al. and Lausberg et al. teach PA 612 with the same polyolefins as described above, it is the examiner's position that the composition of Bouilloux et al. has the claimed tensile modulus of elasticity.

Allowable Subject Matter

8. Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments with respect to claims 14-16 have been considered but are moot in view of the new ground(s) of rejection.

10. Applicant's arguments regarding the valid use of Bouilloux et al. in Paper # 17 (filed 08/12/02) have been fully considered but they are not persuasive.

11. Applicant argues that Bouilloux et al. only teaches VLDPE being used in a comparative example. Applicant is respectfully reminded that LDPE is specified, which does include LLDPE and VLDPE ('055, column 5, lines 5-30).

12. Applicant argues that fundamentally, the present application is not drawn to the chemical structure of a matrix of a polyamide/polyamide-polyether alloy with dispersed cross-linked phase of Bouilloux et al. Applicant is respectfully reminded that the claim limitations of "composition

comprising" in claim 14, and of "component comprised of" in claim 18 do not preclude other materials present in the blend. As long as the reference teaches a blend which comprises a polyamide and a polyolefin, and that extractables are undesirable, the blend described in the broad all-encompassing claims is met by Bouilloux et al.

13. Applicant argues that Jadamus et al. does not suggest any equivalence between the polyalkenamers and polyethylene. Applicant is respectfully reminded that Jadamus does teach that ('552, column 1, lines 35-45).

14. Applicant argues that Jadamus et al. does not suggest any equivalence between the polyalkenamers and polyethylene in terms of flexibility. Applicant is respectfully reminded that claim 23 which contains the single embodiment of polyalkenamers, does not claim the tensile modulus of elasticity which would define and thus give patentable weight to the term "flexible".

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (703)308-3265. The examiner can normally be reached Monday to Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (703)308-4251. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-066.

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Sow-Fun Hon
11/27/02

Nasser Ahmad
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PRIMARY EXAMINER
Acting SPE